

Genus	Vol. 2(1): 11–17	Wrocław, 31 V 1991
-------	------------------	--------------------

## On the genus *Lorentzocassis* SPAETH, 1913 (Coleoptera: Chrysomelidae: Cassidinae)

LECH BOROWIEC

Zoological Institute, University of Wrocław, Sienkiewicza 21, 50–335  
Wrocław

ABSTRACT. Three species of the genus *Lorentzocassis* are redescribed, keyed and figured. A detailed redescription of the genus, with its realitions-hips to other genera, is also given.

This paper is the fourth concerning the revision of the specialized genera of the Old World *Cassidini*. Previous papers include revisions of the genera *Rhacocassis*, *Malayocassis*, *Emdenia* and *Austropsecadia* (BOROWIEC, 1987, 1991a, 1991b).

SPAETH (1912) proposed the new genus *Lorentzia* for a single species *L. purpurascens* SPAETH, 1912, but the generic name was preoccupied by *Lorentzia* CAMERON, 1911. In 1913, SPAETH described the new genus *Lorentzocassis* for the new species *L. papuana*, and in a foot-note he synonymized *Lorentzia* SPAETH, 1912 with *Lorentzocassis* SPAETH, 1913. At last, in 1926, SPAETH described a third species of the genus — *L. aruensis*. These species have never been revised, figured or keyed. They belong to entomological rarities and are known from a few specimens only, their host plants and bionomy are unknown.

The present paper includes a detailed redescription of the genus and its species, including comparative notes on other specialized genera of the Old World *Cassidini*. I have examined types of all the species, preserved in the British Museum, Natural History, London (BMNH), Instituut voor taxonomische Zoologie, Amsterdam (ITZ), Spaeth's collection in

the Manchester Museum (MM). I would like to express my sincere thanks to Dr. B. J. ALDRIDGE (BMNH), Dr. B. BRUGGE (ITZ), and Dr. C. JOHNSON (MM) for the loan of the specimens.

### *Lorentzocassis* SPAETH, 1913

*Lorentzocassis* SPAETH, 1913: 449.

*Lorentsia* SPAETH, 1912: 120 (sic! error typogr.), nec CAMERON, 1911 (type species: *Lorentsia purpurascens* SPAETH, 1912, by monotypy).

*Lorentzia*: SPAETH, 1913: 449.

Type species: *Lorentzocassis papuana* SPAETH, 1913: 449 (by monotypy).

Large, body length 10.3–10.8 mm. Body circular to pentagonal in outline. Pronotum transverse of very characteristic shape: in *L. papuana* maximum width of pronotum in the middle (fig. 12), pronotal sides angulate, pronotal margin behind lateral angulation straight; in *L. aruensis* and *L. purpurascens* maximum width of pronotum distinctly in front of the middle (figs. 10, 11), pronotal sides strongly angulate to subacute, pronotal margin behind lateral angulation deeply concave. Pronotal disc moderately convex, distinctly bordered from explanate margin, smooth, glabrous. Explanate margin very broad, subhorizontal, smooth, shiny, with honeycomb structure. Scutellum large, triangular. Base of elytra wider than pronotum. Anterior margin of elytron crenulate, strongly arcuate, so humeral angles strongly protruding anterad and reaching lateral angulation of pronotum (figs. 13–16). Elytra with large, conical postscutellar tubercle (figs. 1–3), shallow postscutellar depression, and distinctly marked principal depression. Elytral puncturation regular, small and dense, at sides and in apical half of disc punctures disappearing. Intervals several times wider than rows, flat, shiny, glabrous. Last interval broken in the middle by large transverse fold. Marginal row distinct, its punctures several times larger than in submarginal row. Explanate margin very broad, almost as wide as width of disc of elytron, subhorizontal with tendency to form a shallow gutter, impunctate, glabrous, with honeycomb structure. Extreme apex of elytral epipleura with very short, sparse, erect hair. Venter of pronotum without antennal groove. Prosternum deeply emarginate anteriorly, mouthparts free. Head horizontal. Clypeus about 1.6 times wider than long, lateral grooves disappearing, but central area of

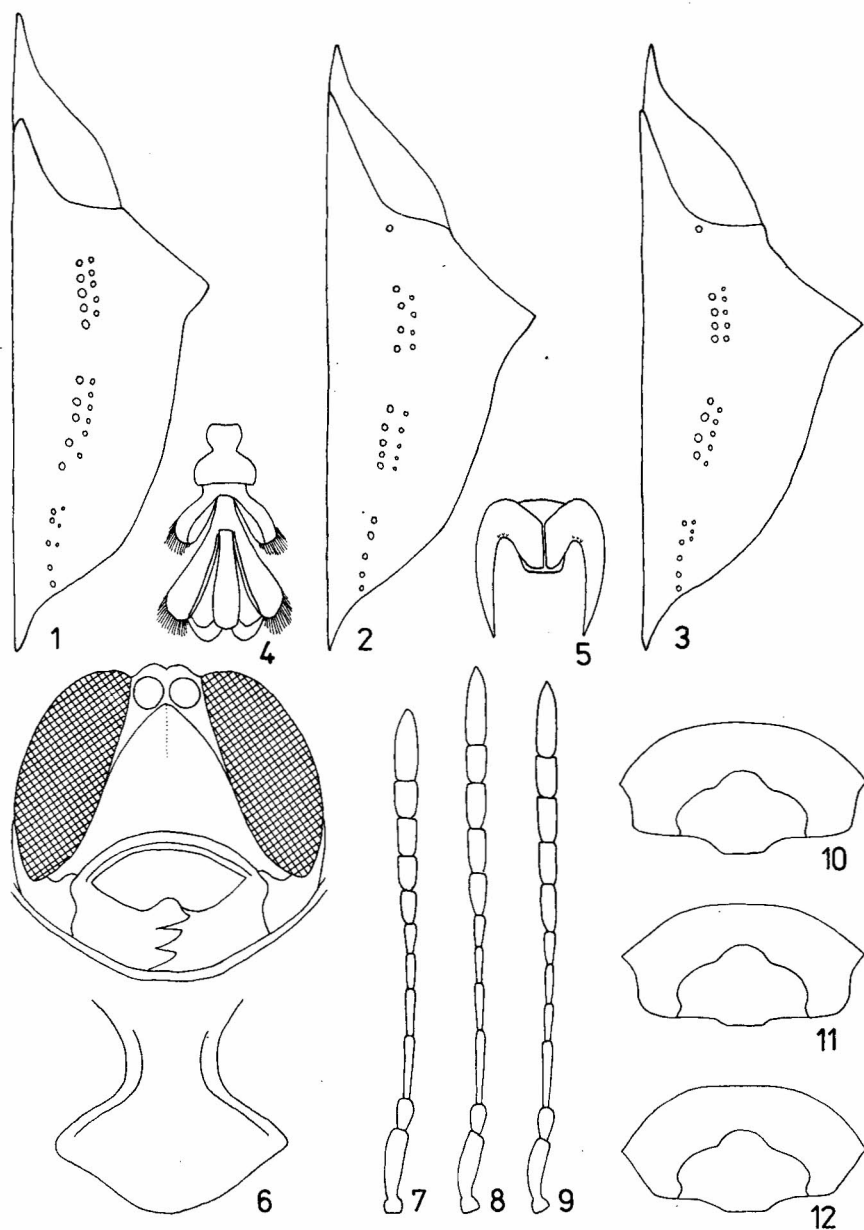
clypeus forms triangular elevation, gradually increased from base to antennal insertions. Surface of clypeus impunctate. Eyes large, gena obsolete (fig. 6). Labrum large, transverse, without longitudinal carina, distinctly emarginate medially. Prosternal collar very short, prosternal process broad, strongly expanded apically, its surface without special sculpture (fig. 6). Antennae moderately long, extending beyond hind margin of pronotum by last three segments. Antennal segments slim, six basal glabrous and scarcely pubescent, five distal dull and densely pubescent. Segment 3 about two or three times longer than segment 2 (figs. 7–9). Mid femora without subapical tubercle, tibiae not canaliculate externally. Tarsi moderately broad, last segment about as long as third one, claws not reaching beyond marginal setae of third segment (fig. 4). Claws simple, micropectinate (fig. 5).

Distribution: Borneo, New Guinea, Aru Is. and Bivak Is.

Comparative notes. *Lorentzocassis* belongs to the group of specialized genera with large postscutellar tubercle of elytra. It differs from all other genera in strongly arcuate anterior margin of elytron and pronotum with straight or concave lateral margin. *Thlaspidula* SPAETH differs in labrum with median, longitudinal carina, *Rhacocassis* SPAETH — in the presence of antennal grooves, *Thlaspidosoma* SPAETH — in extremely long antenna reaching hind coxae, *Meroscalsis* SPAETH — in the presence of subapical tubercle of mid femora and strong elytral puncturation, *Hovacassis* SPAETH — in the presence of only three basal glabrous antennal segments, *Austropsecadia* HINCKS — in long gena and strong elytral puncturation, and *Thlaspidula* WEISE — in densely pubescent apices of elytral epipleura and strong elytral puncturation.

#### KEY TO THE SPECIES

1. Explanate margin of elytra with black spots (figs. 13, 14). Anterior margin of elytron arcuate at an angle about  $130^\circ$  (fig. 13). Lateral margin of pronotum straight (fig. 12). . . . . *L. papuana*
- Explanate margin of elytra without black spots (figs. 15, 16). Anterior margin of elytra arcuate at an angle  $90^\circ$  (figs. 15, 16). Lateral margin of pronotum concave (figs. 10, 11). . . . . 2.
2. Base of pronotal spot not wider than base of scutellum (fig. 15). Postscutellar tubercle yellow . . . . . *L. aruensis*
- Base of pronotal spot about thrice wider than base of scutellum (fig. 16). Postscutellar tubercle purple-reddish . . . . . *L. purpurascens*



1-3. Body in profile: 1 - *Lorentzocassis papuana*, 2 - *L. aruensis*, 3 - *L. purpurascens*.  
 4-6. *L. papuana*: 4 - tarsus, 5 - tarsal claws, 6 - head and prosternum. 7-9. Antenna:  
 7 - *L. papuana*, 8 - *L. aruensis*, 9 - *L. purpurascens*. 10-12. Pronotum: 10 - *L. purpurascens*, 11 - *L. aruensis*, 12 - *L. papuana*

***Lorentzocassis papuana* SPAETH, 1913**

(figs. 1, 4–7, 12–14)

*Lorentzocassis papuana* SPAETH, 1913: 449, 1914: 128.*Lorentsia papuana* SPAETH, 1912: 121, nomen nudum.

Length: 10.3–10.8 mm, width: 9.7–9.9 mm, length of pronotum: 3.5–3.8 mm, width of pronotum: 7.1–7.5 mm. Body almost circular (figs. 13, 14).

Yellow, last three antennal segments blackish. Pronotum with narrow, elongate spot (figs. 13, 14). Elytral disc mostly black with yellow postscutellar tubercle, lateral fold in the middle of marginal interval, one or two small spots at 3/4 length of interval 3 and 5 and apex of marginal interval. Explanate margin with black humeral and/or posterolateral spots (figs. 13, 14). Scutellum yellow. Puncturation of elytra slightly larger than in other species, distinct also in posterior half of disc.

**MATERIAL EXAMINED**

Lectotype and paralectotype (present designation): “Z. Nieuw Guinea a LORENTZ 1909–10 Bivak Eiland, I. 10” (ITZ); paralectotype: “Z. Nieuw Guinea LORENTZ 1909–10 Noord Rivier, IX. 90” (MM); New Guinea, Busu R., 60 km E of Lae, 13 I–10 II 1979, 1 (author’s coll.).

***Lorentzocassis aruensis* SPAETH, 1926**

(figs. 2, 8, 11, 15)

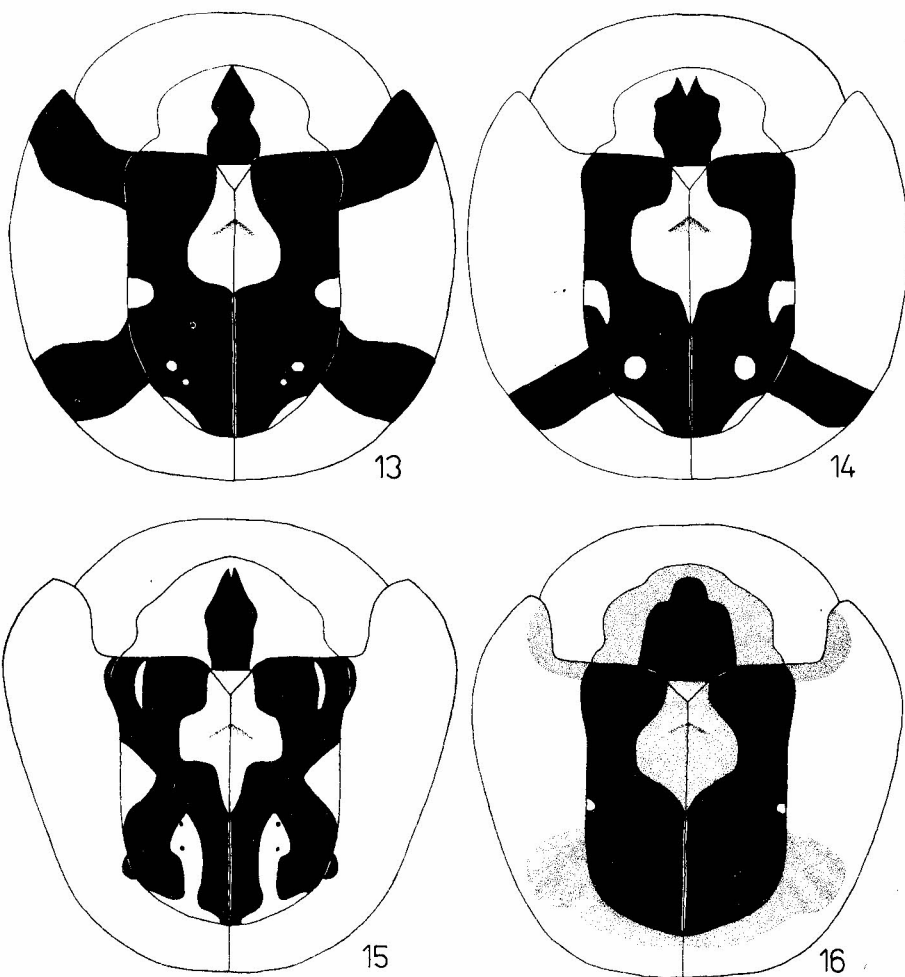
*Lorentzocassis aruensis* SPAETH, 1926: 94.

Length: 10.4 mm, width: 10.2 mm, length of pronotum: 3.5 mm, width pronotum: 7.2 mm. Body pentagonal (fig. 15).

Yellow, last four antennal segments brownish. Pronotum with elongate, black spot in the middle of disc (fig. 15). Scutellum yellow. Elytra with yellow and black pattern. Yellow are: postscutellar tubercle, boomerang-like spot on humerus, triangular spot in the middle of lateral side of disc, and arrow-head like spot in posterior half of disc. Explanate margin with deeper yellow anterior margin, and with brown, small spot in posterolateral part close to marginal row. Puncturation of elytra except marginal and submarginal rows very fine, in posterior half of disc hardly visible. Clypeal triangle more convex than in remaining species, especially in anterior third.

**MATERIAL EXAMINED**

Lectotype (present designation): “Aru-Ins”, “MOSER don. 15” (MM); paralectotype: “Aru-Ins.” (BMNH).



13–16. Body coloration: 13, 14 – *Lorentzocassis papuana*, 15 – *L. aruensis*, 16 – *L. purpurascens*

***Lorentzocassis purpurascens* (SPAETH, 1912)**

(figs. 3, 9, 10, 16)

*Lorentzia purpurascens* SPAETH, 1912: 120.

*Lorentzia purpurascens*: SPAETH, 1913: 449.

*Lorentzocassis purpurascens*: SPAETH, 1913: 449, 1914: 128.

Length: 10.5 mm, width: 10.0 mm, length of pronotum: 3.6 mm, width of pronotum: 7.0 mm. Body subpentagonal (fig. 16).

Yellow, last three antennal segments only slightly infusate. Pronotal disc reddish with large basal, black spot (fig. 16). Scutellum reddish. Elytral disc black with purple-reddish postscutellar tubercle, transverse fold in the middle of marginal row, small elongate spot in 3/4 length of third interval and apex of disc. Explanate margin with yellowish-red anterior margin and purple-reddish posterolateral area, the purple colour do not reaching lateral margin of explanate margin of elytron (fig. 16). Punctuation of elytra, except marginal and submarginal rows, very fine, similar as in *L. aruensis*, in posterior half of disc hardly visible.

#### MATERIAL EXAMINED

Holotype: "WAHNES Borneo" (MM).

#### REFERENCES

- BOROWIEC L., 1987, On the genus *Rhacocassis* SPAETH, 1904 (*Coleoptera*, *Chrysomelidae*, *Cassidinae*), Pol. Pismo Ent., **57**: 453–460.
- , 1991a, On the genus *Malayocassis* SPAETH, 1952 (*Coleoptera*, *Chrysomelidae*, *Cassidinae*), Pol. Pismo Ent., **60**:
- , 1991b, On the genera *Emdenia* SPAETH, 1915 and *Austropsecadia* HINCKS, 1950 (*Coleoptera*, *Chrysomelidae*, *Cassidinae*), Genus, **2**: 1–10.
- SPAETH, F., 1912, One new genus and some new species of Cassidae from Borneo, with a list of all the species at present known from that Island, Sarawak Mus. Journ., **1**: 118–128.
- , 1913, *Cassididae*. In: Résultats de l'Expédition Scientifique Néerlandaise à la Nouvelle-Guinée, Nova Guinea, **9**: 447–452.
- , 1914, *Cassidinae*. In: Coleopterorum Catalogus, pars 62, Berlin.
- , 1926, Mitteilungen ueber die Cassidinen des Prager Nationalmuseums (*Col. Chrysomelidae*), Acta Entom. Mus. Pragae, **4**: 81–96.